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Old West Region
Non-Resident Travel, Tourism and Recreation Survey

Survey Results for the
State of Nebraska from
June 1, 1979 to May 31, 1980

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INTRODUCTION

The five states of the Old West Region - Montana, Wyoming, North Dakota, South Dakota, and Nebraksa - are nationally renowned for their scenic, cultural, recreational, and historic resources. Millions of non-resident travellers visit the region and participate in outdoor recreation each year. While in the Region travellers spend millions of dollars and greatly affect the economic base of the Old West Region.

In recent years, several studies on non-resident travellers have been conducted. In these studies travellers, tourists, and outdoor recreationist of varying ages were asked a variety of questions about similar and different topics at different point in time using various methods. In some cases, only estimates of non-residents had been developed. Clearly, this incomplete, inconsistent, incomparable, and out-of-date information was a poor basis for making sound decision by the Old West Regional Commission and the states in the Old West Region.

Recognizing this data problem, the Commission contracted with Oblinger-Smith Corporation in 1977 to review the data needs of all parties involved. From this review of existing data Oblinger-Smith noted that:

> at the present time not even an estimate of the total number of out-of-state travellers to the Region can be made with any reasonable degree of confidence. More complex, and difficult to gather, data on expenditure patterns, recreation activities, and trip party characteristics is even less available at the regional level.
>
> Knowledge of out-of-state travellers and their recreational and other activities within the Old West Region is basic to public and private decision-making with regard to the provision of services for travellers and tourists; effective travel promotion; the assessment of impacts of non-residents on outdoor recreational facilities; and the development of strategies to stimulate regional economic development.[1]

The 1977 study concluded that a complete data update was necessary. Based on meetings in all states of the Old West Region and on review of information already available, a survey of non-resident travellers at the regional

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[1] Study Design for Travel, Tourism, and Non-Resident Recreation Within the Old West Region, Oblinger-Smith Corporation, October, 1977.

scale was recommended in order to obtain updated, comparable data in an economical manner. The recommended survey was to use common definitions, collect data on a specified set of items, assure complete coverage on a seasonal basis, and provide results within an acceptable range of precision and with a reasonable degree of confidence. The study proposed was to be of stratified random deisgn, so that each non-resident traveller would have approximately an equal chance of being selected regardless of mode of travel, time of year, or states visited. Stratification of the survey sample by mode of travel and time of year would assure that the data collected would not be biased towards summer visitors travelling by motor vehicle.

The study design having been completed and found desirable by Old West member states, contractors were solicited to conduct the actual survey. The consulting firm of Oblinger-McCaleb[2], Architects, Engineers, and Planners, Denver, Colorado, was selected to do the study. The objectives of the study were:

1. to obtain adequate data related to non-resident travel and recreation in the Old West Region through a survey of non-residents travellers,

2. to use the survey data to estimate various items related to the characteristics of non-residents, their travel and expenditure patterns, and their recreational participation.

The items for which information were collected by Oblinger-McCaleb relate to the socio-economic and demographic characteristics of non-resident travellers, their travel and expenditure patterns, their recreational participation, and their visitation of attractions and events. Specifically, the study utilized questionnaires and other techniques to collect data on the following items:

Socio-economic/demographic data

- ages of individual members of travel party
- income of travel party

Travel and trip data

- size of travel party
- mode of transportation (auto, bus, air, other)
- trip origin

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[2] Subcontractors included Montana State University, (Department of Agricultural Economies and Economics); T.A.P., Inc., (Aviation Consultants); North Dakota State University (Community and Regional Planning Department); and University of Nebraska (Community Resource and Research Center).

- primary trip destination
- primary trip purpose
- routes taken in the region
- length of stay in the region (borken down by state)

Expenditure patterns data (broken down by state)

- lodging establishments
- eating and drinking places
- gasoline service stations
- amusement and recreation facilities
- other businesses

Recreational participation data (broken down by state)

- backpacking
- horseback riding
- swimming
- picnicking
- camping
- power boating
- non-power boating
- fishing
- hunting
- snowmobiling
- downhill snow skiing
- crosscountry snow skiing
- golf
- tennis
- off-highway vehicle travel

Visitation of attractions and events data (broken down by state)

- attractions and events visited
- primary influence for visiting each

The information collected on these items was used to make estimates of: (1) the total number of non-resident person-visits to each of the five states, broken down by season; (2) the total non-resident travel expenditures in each of the five states, broken down by season and expenditure category; and (3) the total non-resident outdoor recreational participation in each of the five states, broken down by season and recreational activity.

The remainder of this report outlines the survey methodology utilized, implementation of the survey, processing of the data collected, and major findings of the year long study. Chapter 2 (Survey Design and Implementation) discusses the selected survey technique, how the survey was accomplished, and problems encountered in undertaking the survey. Chapter 3 (Survey Instrument) outlines the design, layout, and return of the survey instrument utilized in the survey. Chapter 4 (Data Processing) explains the procedures used in assembling the raw data collected into a usable form, the computer program used in compiling the information, and access

to the magnetic tapes on which the information has been stored. Chapter 5 (Major Findings) summarizes on a seasonal basis the data collected. These data were utilized to estimate total non-resident travellers to the State, non-resident expenditures in the State, and non-resident recreation participation in the State. These estimates are summarized by season in Chapter 5.

SURVEY METHODOLOGY AND IMPLEMENTATION

Introduction

A central objective of the Non-Resident Travel and Recreation Survey was to select, design, and implement a methodology that insured each non-resident traveller would have approximately an equal change of being selected to respond to a questionnaire or chosen for a personal interview over the course of a year. To accomplish this task, a stratified random design was required in order to survey non-resident travellers regardless of their mode of travel, season of the year, or the purpose of their trip to the State. At the outset of the project several surveying methodologies were identified and evaluated. Past travel and recreation oriented studies have essentially utilized one or a combination of the following survey methods:

1. Interview and distribute questionnaires to out-of-state travallers while they are visiting selected recreation areas.

2. Interview and distribute questionnaires to out-of-state travellers who stop at certain identified locations (e.g. rest areas, restuarants, gas stations, motels, etc).

3. Distribute questionnaires to non-resident travellers as they leave the State.

4. Interview non-resident travellers as they enter the State.

5. Distribute questionnaires to non-resident travellers as they enter the State.

6. Interviewing non-resident travellers as they leave the State.

The least desirable technique was determined to be undertaking interviews and/or distributing questionnaires to out-of-state travellers at selected recreation areas. The selected recreation area survey methodology is only appropriate when the survey objective is to obtain travel characteristics and recreation participation information on a site specific basis (e.g. at the Black Hills, Yellowstone National Park, etc.). However, this approach can create sample biases since it does not record comprehensive geographic state-wide travel information. Furthermore, this technique does not have the ability to obtain information on travellers who visit the State for purposes other than visiting a recreation area. It must be remembered that a major purpose of the Old West Non-Resident Travel and Recreation Survey was to collect data on all travellers, not just recreationists and tourists. For these reasons the recreation area technique

was determined to be unacceptable.

The second technique of interviewing and distributing questionnaires to out-of-state travellers who stop at certain identified locations (e.g., a rest area along an interstate or at a motel in a certain community, etc.) also has a tendency to bias the sample results. When utilizing this methodology the sample design is not random because not all out-of-state travellers have an equal chance of being selected. Regardless of this known deficiency, the Consultant was required to implement this technique on several occasions. In Nebraska, State officials determined that it was imperative that surveying along Interstate 80 was conducted only at rest area locations. Thus, only those visitors who voluntarily stopped at a rest area were surveyed. This decision was a result of high traffic volumes on I-80 and a concern for preventing traffic accidents. Consequently the Consultant was not able to implement the preferred technique of randomly stopping out-of-state vehicles near highway border locations through the utilization of a state highway signage system and flagging techniques.

The Consultant was also required to periodocally survey at motels, hotels, restuarants, and gas stations during the winter months since it was impossible to utilize the signage system due to poor weather and road conditions. This actually compounded the degree of surveying difficulty since non-resident winter travel volumes were extremely low to begin with. When this technique had to be implemented, the field crews changed their survey locations on a periodic basis in order to interject a degree of randomness, expecially between different locations and types of business establishments.

The other four surveying techniques that were evaluated were determined to be more suitable since they did not entail the sample bias problems that were associated with surveying at selected recreation areas or other pre-determined locations. However, after considerable research it was decided not to use the methodologies of distributing questionnaires to out-of-state travellers as they left the state or interviewing travellers as they entered the state. Both of these techniques were determined to be inappropriate due to the problems associated with memory recall on the part of the respondent. Relying on a traveller's recall could substantially affect the data collected,especially in non-destination states which contain less memorable attractions. An even more important recall consideration that could affect the survey results pertains to the amount of time a traveller actually spent in the State. A traveller who spent three weeks in the State is less likely to accurately remember what he did, where he went, and how much he spent. The probability of collecting inaccurate or a relatively small data base lead to the rejection of handing out survey instruments to travellers as they left the State. Interviewing travellers as they entered the State also has a deficiency pertaining to the fact that travellers can only guess or estimate answers to the interview questions based on their expected plans. As is usually the case, what travellers actually do is often not what they plan to do. Utilization of this survey technique could have resulted in inaccurate data, therefore, it was also deemed inappropriate.

It was concluded that the most suitable survey methodologies were to distribute a diary-type questionnaire to out-of-state travellers as they entered the State and to conduct interviews with travellers as they left the State. The distribution of questionnaires to travellers when entering the State allowed survey crew members to explain the importance of the study. More importantly, it enabled the survey respondent to record travel and recreation participation information throughout the course of their trip. The problems associated with memory recall were largely alleviated from the study since the surveys were returned by mail after the trip to the State was completed. However, approximately 10 percent of the travel sample respondents were required to answer the survey instrument questions through the course of a personal interview before leaving the State. This interview technique insured a larger survey response rate compared to exclusively relying on the mailback of the questionnaires. This interviewing technique was more time consuming and subsequently more costly, but the increased response rate proved to be a very beneficial result. A further discussion of the actual surveying techniques that were undertaken is presented later in this chapter.

Sample Size

One of the most important initial survey decisions was the determination of the sample size which concerns the appropriate number of questionnaires to be distributed and the number of personal interviews to be undertaken during the course of the survey period. Sample size is important because of its relationship to the confidence of the travel and recreation estimates and because of its survey cost implications. After reviewing the available budget and the scope of the project, it was decided that 9,000 questionnaires were to be distributed and 1,000 personal interviews were to be indertaken in the State throughout the 12 month study.

Stratification of the Survey Sample

As discussed earlier, the purpose of stratifying the random sample was to assure that each non-resident traveller would have approximately an equal chance of being surveyed regardless of mode of travel, season of year, or trip purpose. The first step of the stratification of the sample involved the delineation of strata which concerned the modes of transportation to be surveyed as well as the demarcation of survey time frames. It was determined at the outset of the project that the sample was to be administered to summer, fall, winter, and spring non-resident visitors who travelled by motor vehicle, airplane, bus, and train. The organization of non-resident travellers into the various strata largely assured that sample biases were not introduced. Thus, careful attention was given to stratifying and weighting survey distribution based on non-resident traffic volumes between the various modes, the selected survey locations, and the seasons of the year. This effort was undertaken to alleviate sample biases such as sampling only summer visitors who travelled in the State by means of the automobile on the Intersate Highway System.

The survey sample was stratified by the four seasons of the year since the majority of past non-resident travel and recreation data has been collected and analyzed for only the summer tourist oriented months. The year-

long survey was divided into the following four time frames:

1. Summer - June, 1979 through August, 1979
2. Fall - September, 1979 through November, 1979
3. Winter - December, 1979 through February, 1980
4. Spring - March, 1980 through May, 1980

Thus, the sample methodology allowed the survey results to be tabulated and analyzed separately for each season and for the modes of travel surveyed within each season. This disaggregated survey approach allows the user to analyze travel and recreation trends between the various modes within any season as well as providing a comparison between and among the four seasons. A major goal throughout the course of establishing and implementing the survey methodology was to insure a high degree of flexibility when analyzing and comparing the survey findings.

During the coarse of the study the only major sample strata variation that was allowed pertained to eliminating the train passenger survey mode. After the first six weeks of initiating the survey it became obvious that surveying this mode of travel was an extremely difficult and time consuming task. This was largely a result of train traffic occurring in the early morning hours, travellers remaining on the train, and the low volume of non-resident travellers.

The second stratification step entailed weighting the distribution of the 10,000 surveys based on the corresponding traffic volumes for each mode and for each season. This sample frame procedure was critical since it determined the allocation of the overall sample size to each of the delineated stratum at randomly selected survey locations. The allocation of the sample design was based on 1977 non-resident data since it was the most current and complete data available. Non-resident data for 1977 for the following factors was generated:

1. Total number of non-resident passengers on an annual basis for each of the three modes, motor vehicle, airplane and bus.

2. Total number of non-resident passengers travelling by each mode during the respective four seasons of the year.

As an integral part of establishing the sample frames, it was necessary to calculate the number of surveys to be distributed to each mode. This required estimating the total number of 1977 non-resident motor vehicle, air, and bus passengers to achieve a total count of non-resident travellers. The total number of non-resident passengers for each mode was then divided by the total of all the modes to arrive at the percentage that each mode constituted of the total. The amount of air and especially bus travel in the State constitutes a low percentage of the total non-resident passenger volume which made it necessary to increase the percentage factors by several points. If the actual modal distribution percentages had been utilized and applied to the 10,000 sample size figure, a smaller air res-

ponse rate would have occurred and a very minimal amount of bus travel information would have been obtained. In essence, motor vehicle traffic is so dominant in the State that modifications to the distribution patterns was mandatory because of the sample size.

After the total number of surveys to be distributed to each travel mode was determined, the next procedure involved delineating how many surveys were to be distributed during each of the four survey seasons. To accomplish this a very detailed research effort was required in order to obtain the most accurate seasonal travel distribution information.

Due to working with five separate states, it was necessary to create a common analytical base for each mode throughout the five-state Old West Region. Motor vehicle and airplane data information were the most complete of the four modes while bus and train data proved to be the most deficient.

Motor Vehicle Sample Frame Stratification

The distribution of survey instruments to motor vehicle travellers was based on available non-resident traffic count statistics (average daily traffic) for highway border corssings in the State. This information was obtained from the State Highway Department which supplied annual and/or seasonal statistical data as well as traffic flow maps when available. In most cases, traffic data was obtained from either manual or automatic count stations located nearest State border crossings.

Monthly non-resident ADT percentage data was utilized to stratify the sample by the four seasons of the year. The percentage that each month was to the annual average daily traffic were averaged for each highway type. The numbers calculated were then applied to the annual average daily traffic count for the highway type at each border crossing to determine that month's non-resident traffic flow. In most circumstances, monthly ADT percentages represented total traffic and since non-resident traffic is known to fluctuate disproportionately to the total, it was necessary to make monthly adjustments to account for increased summer travel and recreation participation by non-residents in the State. The monthly adjustments were developed through contact with state recreation officials who indicated that the monthly percentages should be weighted to account for the higher proportion of non-resident travel and recreation participation during the summer months.

The weighted percentages were then multiplied times the average annual traffic count and aggregated to reflect the seasonal ADT percentage allocated. The seasonal ADT percentage was used to calculate the total number of motor vehicle surveys that were to be distributed or utilized for interviewing purposes during each season. Based on the annual average traffic count for each highway border crossing, a minimum annual daily average non-resident traffic count was arrived at for the purpose of randomly selecting the survey locations. Only those locations that surpassed a minimum ADT volume were submitted for possible selection through the use of random number tables. Roads having larger non-resident ADT volumes were more likely to be randomly selected as survey locations due to a traffic volume weighting procedure. In addition, an attempt was made to

continue selecting highways and roads until approximately 60 percent of the State's total annual non-resident traffic volume was attained. Table 1 illustrates the highway survey location sites randomly selected and the percent of foreign ADT. The percent of foreign ADT was utilized to calculate the number of questionnaires to be distributed at each location through the course of each season. It should be noted that throughout the fall, winter, and spring seasons there was a slight fluctuation in the ADT percentages that were utilized due to the fact that a few roads were dropped from the survey. The roads surveyed during each of the four seasons are identified in the respective four Seasonal Summary Statistical Reports. A few lower volume roads were eliminated as a result of manpower surveying considerations and poor weather conditions. However, this modification did not affect the objective to survey a minimum of 60 percent of the State's seasonal non-resident traffic volume.

TABLE 1

SELECTED HIGHWAY SURVEY LOCATION SITES
NEBRASKA

Location	Percent of Foreign ADT	Location	Percent of Foreign ADT
I-80 East of Lincoln, Nebraska	43.5	N. 2 East of Syracuse, Nebraska	8.4
I-80 West of Kimball, Nebraska	15.5	U.S. 136 East of Auburn, Nebraska	4.5
U.S. 81 North of N.12	10.1	U.S. 81 South of Hebron, Nebraska	4.5
U.S. 77 North of South Sioux City, Nebraska	9.7	U.S. 83 North of Valentine, Nebraska	2.1
		U.S. 385 North of Chadron, Nebraska	1.8

Source: Oblinger-McCaleb, Architects, Engineers, and Planners.

Air and Bus Sample Frame Stratification

A sampling frame very similar to the automobile methodology was utilized for the purpose of surveying commercial airline and bus travellers. The major work task involved gathering airline and bus traffic volumes on a seasonal basis and determining the number of survey instruments to be distributed at various terminals in selected cities throughout the State. The airline data supplied for the year 1977 represented non-resident passenger boardings at randomly selected airports served by commercial carriers. T.A.P., Inc., aviation consultants located in Bozeman, Montana, supplied the necessary airline information which was extracted from Civil Aeronautics Board statistics.

All airports in the State were ranked according to the percentage they constituted of the total origin and destination volume. The highest ranked airport was selected as a survey location, then the second highest airport was chosen, and so forth until at least 60 percent of the origin and destination total had been chosen. When establishing the seasonal sampling frame, only boarding totals were used based on the need to interview only those travellers who had spent time in the State opposed to interviewing travellers who had just arrived. As was the case with the automobile sample design, the percent factor of seasonal non-resident boardings at selected airports was applied to the total number of surveys to be distributed to non-resident airline passengers for each season. The identification of the airports surveyed is included in each Seasonal Summary Report.

Data for non-resident bus passengers was limited.[1] The most useful information concerning bus passengers was that nationally 4 to 5 percent of all travellers travelled by bus while within the five-state Old West Region people travelling by bus averaged between 1.5 percent to 2 percent. It was necessary to estimate bus passenger volumes by using the total number of bus routes through individual cities and towns in the State since non-resident bus passenger volume data was not available. It was assumed that if a city or town had a larger number of routes, it had a larger share of the bus passenger volume.

Russell's Official National Motor Coach Guide was used to determine the number of routes through the State's cities and towns. The larger municipalities in the State were chosen as survey locations since they were served by the largest number of interstate bus routes.

Surveying bus travellers proved to be difficult throughout the course of the study since there was a minimal number of non-resident passengers at most selected bus stations.

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[1] Sources contacted for bus passenger data included the State of Colorado Public Utilities Commission, Greyhound Lines, Inc., Division of Trailways, Inc., and the American Bus Association.

Sample Survey Implementation

As illustrated on the following map, the five states comprising the Old West Region were divided into four administrative subregions for the purpose of implementing the survey in an efficient and cost-effective manner. The subregions were created to lessen the travel distances that the three to five member crews were required to travel to reach the assortment of survey locations. The crew members were primarily comprised of college students who were trained and supervised by Consultant staff as well as assistance provided by university professors located in Bozeman, Montana; Fargo, North Dakota; and Lincoln, Nebraska. A crew supervisor was also assigned to each crew who was primarily responsible for insuring that the sampling quoatas at every given location were met in accordance with the trip schedules and sample frames developed by the Consultant. The actual number of survey instruments distributed by survey location and date is contained on the seasonal magnetic tapes.

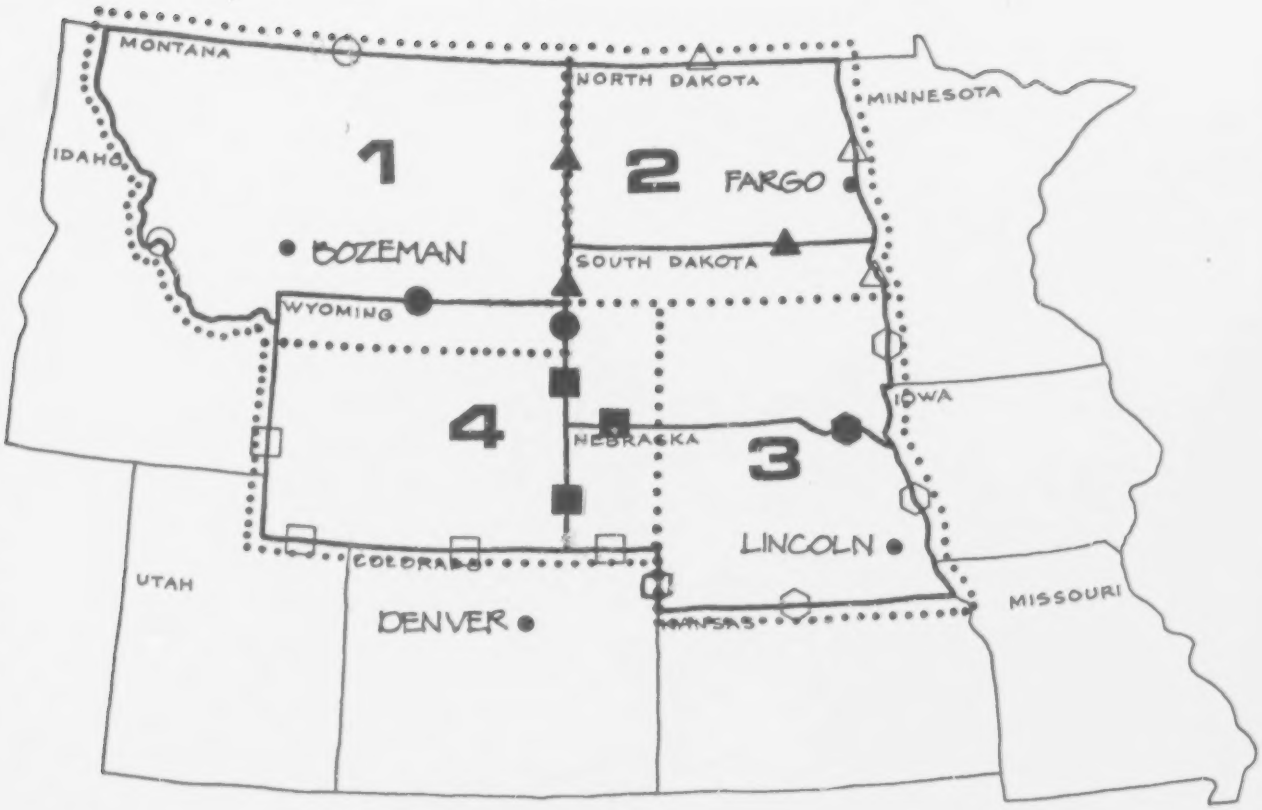
As mentioned earlier, non-resident motor vehicles (excluding commercial traffic) were stopped on a random basis at the selected border sites. The crews used a signage system and a flagging technique that was approved by the State Highway Department. The Highway Department's assistance was a key element of implementing the motor vehicle portion of the survey since they provided the necessary signage equipment, explained the required safety procedures, and helped identify suitable survey locations throughout the project.

The Consultant was responsible for the various costs associated with transporting the crews and the assortment of surveying equipment. This travel aspect of the study proved to be very costly and at times entailed logistical obstacles. This was a result of employing seven crews during the summer; each crew was required to have access to a van or truck to transport the survey equipment (signs, stands, cones, etc.); and in most circumstances the travel distances between the survey sites was extensive. Thus, the renting, maintenance, and operation of vehicles as well as crew per diem travel expenditures constituted a larger than expected portion of the available project budget.

At intra-regional border locations (adjacent Old West States) the crews were able to distribute questionnaires and undertake personal interviews for two states simultaneously. At an intra-regional survey site established on one side of the road, the crews recorded enumeration data and distributed survey instruments to out-of-state travellers as they entered the State. In addition, with the same signage setup, non-resident passengers leaving an adjacent Old West State were stopped for the purpose of undertaking a personal interview to collect travel and recreation participation information pertaining to that particular state. Of course, when the survey site was changed to the opposite side of the road, the work procedures accomplished were reversed.

The survey crews were also required to travel to selected cities and towns in the State to distribute questionnaires and undertake personal interviews at selected airport terminals and bus stations. The administrative staff at the various airports and bus stations were contacted in advance

ADMINISTRATIVE SUB REGIONS
FOR FIELD SURVEY PURPOSES



SUB REGION	OFFICE	INTER - REGIONAL	INTRA - REGIONAL
1	BOZEMAN	○	●
2	FARGO	△	▲
3	LINCOLN	⬡	⬢
4	DENVER	□	■

•••••• SUB REGION BOUNDARIES

Map 1

of actual surveying in order to explain the importance of the study and to obtain permission to undertake the surveying. The crew supervisors also contacted the appropriate airline and bus officials prior to the time the actual surveying was to commence, informing them of the specific companies to be surveyed and the general methodology that would be used. After receiving final approval, the crew members proceeded to the appropriate gates where passengers were preparing to board their scheduled plane or bus.

The first question addressed pertained to determing if a passenger was a resident or a non-resident. Resident passengers were merely thanked for their time, while non-residents were asked to reply to the respective enumeration questions and were then given a questionnaire or interviewed.

Sample Response Rates

Table 2 illustrates the number of surveyes distributed in each of the four respective seasons, the number of usable surveys returned and the corresponding response rates.

TABLE 2

TOTAL RESPONSE RATES BY SEASONAL DISTRIBUTION
NEBRASKA

Season	Surveys Distribted	Percent Distributed	Surveys Returned	Response Rate
Summer	5,227	51.9	1,730	25.1
Fall	2,017	20.0	539	28.2
Winter	1,138	11.3	306	34.0
Spring	1,689	16.8	579	34.3
TOTAL	10,071	100.0%	2,847	28.3%

Source: Oblinger-McCaleb, Architects, Engineers, and Planners - 1980.

As shown in the table, a total of 10,071 surveys were distributed through the course of the survey and 2,847 surveys were returned for a total response rate of 28.3 percent. Thus, the accompanying computer tapes contain 10,071 computer records and 2,847 survey instrument records.

SURVEY INSTRUMENT

Introduction

The previous chapter outlined the methodology used in surveying travellers to the Old West Region. The principal means by which out-of-state travellers were surveyed was a diary-type questionnaire. An example of the survey instrument utilized is included on the following page.

Questionnaire Layout

The information to be collected by using the questionnaire basically consisted of trip information (such as how the price of gasoline was affecting a traveller's trip, trip destination, what influenced the traveller to go to that destination, and average daily expenditures for various items) and recreation participation information. In order to simplify the handling of the questionnaire by travellers, it was determined that the questionnaires consist of one sheet of paper. This also reduced the costs of printing and postage. Utilizing one sheet facilitated the layout of questions into two parts(trip information and recreation participation information) and the questionnaire was designed accordingly.

Each questionnaire was printed with a serial number which identified the state in which it was distributed and the number of the questionnaire. The serial number was recorded on an enumeration form which was completed by the survey crews at the point of distribution. On this enumeration form was encoded information such as origin, number of persons in travel party, and age of persons in travel party. With the questionnaire and enumeration form all information for the project was collected. The use of the enumeration forms allowed some information to be collected visually (such as number in travel party) which provided additional space on the actual questionnaire for more involved questions. The data on the enumeration forms could also be used to more accurately estimate the total number of non-resident travellers in the State. The enumeration form information was collected for the entire survey sample on the enumeration forms, whereas less information would have been collected by using the questionnaire since only a portion of the total number of questionnaires handed out were returned.

The questionnaire was standardized so it could be used for all transportation modes. This facilitated computer coding of the data which allows eventual comparisons to be made of travellers by mode. Moreover, the questions were structured to facilitate computer coding of the data. For trip information, a respondent was to check the appropriate box or provide a short answer to the question. For recreation participation, a respondent was to keep a "diary" of his recreation activities. This entailed recording the date, recreation area or general location, number of persons, and code for each activity he participated in each day. The activity codes were listed on the right-hand legend of the diary.

We Need Your Help!

This is a survey of non-resident travel and recreation in the Old West Region in which the State of Nebraska is a member. The State of Nebraska is very interested in obtaining reliable information from you in order to improve your travel and recreation experience. The information you provide us will be kept confidential with only general results made available to organizations dealing with tourism and recreation.

You can help the State by responding to the questions on this side of the survey and by keeping a log of your recreation activities on the opposite side in the space provided. Instructions for keeping the log are included on the opposite side. It is important that you fill out this side of the survey and return it even if you do not engage in any recreation activities in the State.

When your visit to Nebraska is over, fold this survey according to the instructions on the opposite side and drop it in any mailbox in the United States. NO STAMP IS NECESSARY.

We sincerely thank you for your cooperation and by responding we hope to make your stay in the State even more enjoyable in the future. Have a safe and pleasant trip!

Trip Information

1. How have the following factors affected your current trip to or through this State? (Please check all applicable effects)

	Present Price of Gasoline	Present Availability of Gasoline
1. No influence	[1]	[1]
2. Shorter trip	[2]	[2]
3. Longer stay(s) at destination(s)	[3]	[3]
4. Fewer side trips	[4]	[4]
5. Cancelled other trips	[5]	[5]
6. Changed mode of transportation	[6]	[6]

2. How would the following factors affect a future trip to or through this State? (Please check all applicable effects)

	Gasoline $1.25 per Gallon	Gasoline $1.50 per Gallon	Gasoline Rationing
1. No influence	[1]	[1]	[1]
2. Shorter trip	[2]	[2]	[2]
3. Longer stay(s) at destination(s)	[3]	[3]	[3]
4. Fewer side trips	[4]	[4]	[4]
5. Cancel other trips	[5]	[5]	[5]
6. Change mode of transportation	[6]	[6]	[6]
7. Travel closer to home	[7]	[7]	[7]

3. Please list the number of days and nights you stayed in this State:

days _____ nights _____

4. Please list the destination of your trip. (Be as specific as possible by listing name of recreation area and/or city/town and State, Canadian Province, or foreign country.)

Recreation Area _____
City/Town _____
State _____
Canadian Province _____
Foreign Country _____

OFFICE USE ONLY [ ][ ][ ][ ][ ]

5. Which of the following States have you visited or will you visit during the course of this trip? (Please check the appropriate box or boxes below)

Montana	Wyoming	North Dakota	South Dakota	Nebraska
[1]	[2]	[3]	[4]	[5]

6. Please indicate your mode (or modes) of travel on this trip by checking the appropriate box or boxes below.

Automobile	Recreation Vehicle (Camper)	Bus	Airplane	Train	Motor Bike
[1]	[2]	[3]	[4]	[5]	[6]

7. Please indicate the purposes of your trip in this State by placing a check in the appropriate boxes below.

Vacation or Recreation	Visit Friends or Relatives	Business	Convention	Just Passing Through
[1]	[2]	[3]	[4]	[5]

8. If you checked the Vacation or Recreation box in question 7 above as a purpose of your trip to this State, what factors influenced your choice? (Please check the appropriate box or boxes below.)

- [1] State Published Promotional Literature
- [2] Advertising (magazines, t.v., radio)
- [3] Scenery
- [4] Recommended by Others
- [5] Previous Visit
- [6] Outdoor Recreation Opportunities

Other Factors (Please list)

- [ ] _____
- [ ] _____
- [ ] _____

9. Please estimate your expenditures, for the average day, at the following types of business establishments in this State. (Please place your dollar estimates in the appropriate boxes)

Hotel/ Motel	Campground	Eating & Drinking	Grocery	Sporting Goods	Gasoline/ Auto Repair	Amusement/ Recreation	Gifts, Film, & Other

10. What is your approximate annual income?

Annual Income:	Family (check one box)	Unrelated Individual (check one box)
Less than $5,999	[1]	[1]
$ 6,000 - $ 9,999	[2]	[2]
$10,000 - $14,999	[3]	[3]
$15,000 - $24,999	[4]	[4]
$25,000 - $49,999	[5]	[5]
$50,000 and over	[6]	[6]

11. Please list the principal travel route(s) that you used while visiting this State. (Please use U.S. or State route numbers--for example, I-80, U.S. 29, or State 15.)

Route Numbers

_____

12. Please list the attractions and events you visited in this State on your trip and check the primary influence for visiting each. Attractions include museums, historic sites, natural wonders, etc., while events include spectator sports, conventions, festivals, etc.

Attraction or Event	Primary Influence for Visiting: Previous Visit	Friends/ Relatives	Radio/ TV Ads	High-way Information Center	Road Signs	State Published Literature	Other Literature	Other
_____	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
_____	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
_____	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
_____	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
_____	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
_____	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
_____	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]
_____	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]	[ ]

Recreation Participation Information

Instructions

Each time you stop to engage in an outdoor recreation activity in this State please enter the date and the name of the recreation area (or general location) in the chart below. In addition, please list in the chart the number of persons in your group who actually participated in any of the activities listed to the right and then enter the corresponding activity numbers. Please be as specific as possible.

An example has been provided for your convenience on the first few lines of the chart below. The example shows that on July 7th a group of four visited Red Rock State Park and that one member hiked for several hours, three members fished at a stream, and the entire group camped in a public campground.

OFFICE USE ONLY	Date	Recreation Area or General Location	Number of Persons	Activity Number
	7/1/79	Red Rock State Park	1	8
	7/7/79	Red Rock State Park	3	12
	7/7/79	Red Rock State Park	4	2

MOTOR VEHICLE ENUMERATION FORM

(Place the symbol PI before the serial number if a personal interview was undertaken)*

DATE_____ STATE_____ HIGHWAY NUMBER_____

Serial number_____
Type of vehicle
(Use code number)_____
Name:_____
Home
Address:_____
(include
zip code)_____
Number in travel group_____
Ages of individuals in travel group
_____

Serial number_____
Type of vehicle
(Use code number)_____
Name:_____
Home
Address:_____
(include
zip code)_____
Number in travel group_____
Ages of individuals in travel group
_____

Serial number_____
Type of vehicle
(Use code number)_____
Name:_____
Home
Address:_____
(include
zip code)_____
Number in travel group_____
Ages of individuals in travel group
_____

Serial number_____
Type of vehicle
(Use code number)_____
Name:_____
Home
Address:_____
(include
zip code)_____
Number in travel group_____
Ages of individuals in travel group
_____

Serial number_____
Type of vehicle
(Use code number)_____
Name:_____
Home
Address:_____
(include
zip code)_____
Number in travel group_____
Ages of individuals in travel group
_____

Serial number_____
Type of vehicle
(Use code number)_____
Name:_____
Home
Address:_____
(include
zip code)_____
Number in travel group_____
Ages of individuals in travel group
_____

Serial number_____
Type of vehicle
(Use code number)_____
Name:_____
Home
Address:_____
(include
zip code)_____
Number in travel group_____
Ages of individuals in travel group
_____

Serial number_____
Type of vehicle
(Use code number)_____
Name:_____
Home
Address:_____
(include
zip code)_____
Number in travel group_____
Ages of individuals in travel group
_____

*(At the end of each day please staple this form to the Motor Vehicle Daily Log sheet)

AIR, BUS AND RAIL ENUMERATION FORM

(Place the Symbol PI before the serial number if a personal interview was undertaken) *

DATE:_____ STATE:_____

CITY/TOWN:_____ NAME OF COMPANY:_____

FLIGHT NUMBER ETC._____

Serial number:_____ Serial number:_____

Name:_____ Name:_____

Home Address:_____ Home Address:_____
(include
zip code)_____ (include
zip code)_____

Number in travel group:_____ Number in travel group:_____

Ages of individuals in travel group:_____ Ages of individuals in travel group:_____

_____ _____

Serial number:_____ Serial number:_____

Name:_____ Name:_____

Home Address:_____ Home Address:_____
(include
zip code)_____ (include
zip code)_____

Number in travel group:_____ Number in travel group:_____

Ages of individuals in travel group:_____ Ages of individuals in travel group:_____

_____ _____

Serial number:_____ Serial number:_____

Name:_____ Name:_____

Home Address:_____ Home Address:_____
(include
zip code)_____ (include
zip code)_____

Number in travel group:_____ Number in travel group:_____

Ages of individuals in travel group:_____ Ages of individuals in travel group:_____

_____ _____

Serial number:_____ Serial number:_____

Name:_____ Name:_____

Home Address:_____ Home Address:_____
(include
zip code)_____ (include
zip code)_____

Number in travel group:_____ Number in travel group:_____

Ages of individuals in travel group:_____ Ages of individuals in travel group:_____

*(At the end of each day please staple this form to the Air, Rail or Bus Daily Log sheet.)

Return of Questionnaires

Since travellers were asked to keep a diary of their recreation activities, they were to keep the questionnaires and return them when their trips were concluded. This also meant that a means for returning the questionnaires was needed. Asking travellers to mail them back at their own expense was considered impractical and the response rate probably would have been very low. It was believed that providing the travellers with a way to mail back the questionnaires would increase the response rate. Pre-addressed and stamped envelopes attached to the questionnaires were considered, but they could easily be lost or the stamps removed. This method conceivably would have lowered the response rate and increased the overall project costs.

The best way to circumvent the postage and envelope problems was to utilize business reply mail. This allowed the questionnaires to be returned without prepayment of postage; that it, without the purchase of a stamp by the individual travellers. No envelope would be needed since the business reply mail segment would appear on the outside of the questionnaire. When sealed and dropped in any mailbox, the questionnaire was mailed to the address shown.

Nearly all of the returned were folded correctly. A small percentage were torn apart and fastened together in some manner, but usually with the business reply mail side showing. For some reason, a few were returned in stamped envelopes. Business reply mail does not apply in Canada and a few tourists did not mail them as they left the U.S. However, a small percentage of Canadian travellers attached a stamp and mailed the questionnaires from Canada.

Business reply mail was chosen because it may be distributed in any quantity for return to any post office in the United States without prepayment of postage by the individual respondent. However, several procedures must be followed prior to the use of business reply mail. A permit, for which an annual fee of $30 is charged for each calendar year, is required to distribute business reply mail. An application for a permit must be submitted at the post office where the mail will be returned. When the application is approved the permit holder is issued a permit number which identifies all mail to be returned to the holder. Permit holders have the option of keeping a business reply mail advance deposit trust account at the post office (for which an accounting fee of $75 is required) or paying postage due charges to the carrier upon delivery. In the case of this survey, it was believed more convenient and less costly to establish a trust account due to the anticipated amount of return mail. As questionnaires were returned, the postage due was subtracted from this advance deposit trust account. Utilizing the trust account, the postage due was regular first class postage plus a surcharge of 3.5 cents per piece. If no advance deposit trust account had been maintained, the amount of postage due would have been regular first class postage plus a surcharge of 12 cent per piece.

Other procedures which must be followed to utilize business reply mail con-

cern the format of the address side of business reply mail. Generally, any photographic, mechanical, or electrical process or combination of processes, other than handwriting, typewriting, or handstamping, may be used to prepare the address side of the business reply mail. The background of business reply mail pieces may be any light color that allows the address, postmark, and other required endorsements to be readily discerned. The format of the business reply mail must comply with exact dimensions, layouts, and specifications as prescribed by the U.S. Postal Service. These specifications are quite detailed and will not be discussed here. Further information can be obtained by consulting Publication 115, Business Reply Mail Regulations, available at any post office.

Postal inspection of sample reply pieces is normally not required prior to distribution by permit holders. However, permit holders are encouraged to submit sample pieces to their local postmaster for review. Doing so avoids the possible inconvenience and cost of reprinting if the Postal Service determines that business reply format requirements are not being met and that existing unapproved pieces are not mailable.

DATA PROCESSING

Introduction

The data processing phase of the study included numerous procedural steps and for the sake of simplification a description of the steps undertaken has been divided into two major topic catagories. The first topic, General Description, describes the steps involved in the actual manual coding and processing of the data. This discussion does not delve into the technical details of computer processing, but concentrates on the coding and physical steps involved in processing the survey data. The second topic, Technical Description, describes record layouts, the data format of the magnetic tapes, the SPSS program used to produce the statistical summaries, and other information of use to the technician. This division reflects the varying interests of the data users and permits the users to locate areas of concern without searching through various descriptions of no interest. Taken together, the two topics provide a complete description of the data processing methodology utilized as well as indicate the necessary information required for complete user access to the raw data contained on the magnetic tapes.

General Description

The physical processing of survey instruments and field enumeration forms can be broken down into the following steps:

1. Coding and sorting the data
2. Keypunching survey instruments and enumeration forms
3. Editing, sorting record alignments, production of activity days tabulations, and
4. Final processing and report writing utilizing the Statistical Package for the Social Sciences.

The following data processing discussion corresponds to the four steps outlined above. This will convey the full scope of the methodology used and provide detailed information on the contents of the data tapes produced. Once a full understanding of the data and its structure is reached, the full flexibility of the data tapes for further analysis can be realized.

Step 1 - Data Coding and Sorting

Several items on both the enumeration forms, which were completed in the field by the survey crews, and the survey instruments required coding conversions from alpha-numeric (words and phrases) to a pure numeric form. The reason for this is that for statistical purposes, alpha-numeric is extraordinarily inefficient or in some cases simply not applicable for computer processing.

On the enumeration forms the following items required in-house coding*. First, each Old West Region state was given a code of one through five. The coding was as follows:

1. Montana
2. Wyoming
3. North Dakota
4. South Dakota
5. Nebraska

Next, the survey locations for all states were given a two digit numeric code. For instance, U.S. 191 south of Bozeman, Montana was given a code of "81". In total there were 73 survey locations each with its own location code.

The last item which required alpha-numeric to numeric coding was the home address of the travel party. For purposes of tabulating origination data for the travel parties, the home state was given a two digit code. All states as well as the Canadian provinces were given individual codes. All other locations such as other foreign countries were coded "99".

The remaining information on the enumeration form for each travel party (date, survey serial number, vehicle code, number in travel group and the ages of individuals) required no coding since this information was already in numeric form.

The survey instrument can be conveninetly divided into two parts, trip information on the one side and the recreation participation information on the reverse side. With respect to the trip information side, question 4 dealing with trip destination required in-house coding. When a specific recreation area was listed as a destination, this location was located through secondary data sources and was then coded into the applicable state recreation planning region. The destination state, Canadian province or foreign country was also coded according to the two digit numeric code established previously for the place of origination. The remaining information on this side of the questionnaire required no coding conversions.

The reverse side of the questionnaire, recreation participation, consisted of the diary/log-book entries. For each diary line completed by the travel party, the recreation area or general location was again located and coded into its appropriate state planning region. This enabled the computation of activities days by activity type by planning region for each state.

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*Refer to Chapter 3 for reproductions and descriptions of the enumeration form and Chapter 2 for survey instrument and distribution techniques.

Step 2 - Keypunching Survey Instruments and Enumeration Forms

The information contained on the enumeration forms and survey instruments was keypunched, verified, then transferred directly onto magnetic tape. This removed the cumbersome burden of handling literally tens of thousands of computer cards and retained the integrity of the data throughout the remainder of data processing.

Step 3 - Editing

Once the survey information was transferred onto magnetic tape, the information underwent an editing procedure which further checked for illegal information keyed onto the tapes. Next, the recreation participation information was removed from the other survey instrument data and was transferred onto separate magnetic tape for each state due to the length of the data field. The enumeration information pertaining to each travel party was then matched to the corresponding returned surveys producing a single data record of all information for each travel party. The matched data records and the unmatched enumeration entries (meaning no returned survey) were then written onto a separate megnetic tape for each state.

The final stage in this step of the data processing was to process the tapes containing the recreation participation information. This produced a tabulation of the number of activity days by activity and by state planning region. The recreation participation data was then written as a separate block of information onto the tape containing the other survey data for the corresponding state.

Step 4 - Final Processing

The magnetic tapes containing all the information for each travel party were then processed using the Statistical Package for the Social Sciences (SPSS). This produced the statistical summary reports for each season of surveying. This completed the processing of the magnetic tapes which contained the trip information and the enumeration form information.

Technical Description

The structure of data format was designed to allow maximum flexibility for analysis and ease of information access for the users. The information contained in this section is subdivided under the following headings:

1. Survey Products
2. Coding and Levels of Analysis
3. Record Formats
4. Magnetic Tape Formats
5. SPSS Specifications

Survey Products

The survey processing was conducted in batches by season. This resulted in each state receiving one two-file tape per season for a total of four magnetic tapes. On each tape, the first file contains the enumeration/survey data and the second file contains the recreation participation data. From each magnetic tape a statistical summary report was produced. This resulted in each state receiving one volume per season. The four magnetic tapes, the four statistical summary reports, and these documents together with the enumeration forms and survey instruments themselves constitute the products of the Old West Region Travel and Tourism Study.

Coding and Levels of Analysis

The coding of alpha-numeric data to numeric was conducted in order to facilitate the data processing. (See Section A, Part 1.) For those questions on the survey instrument which required the respondent to check a box, if the box was checked it was keypunched as a "1", if it was not checked it was left blank and keypunched as a "0".

Questions 1 and 2 deserve additional comment in order to properly interpret the survey results. These questions permit multiple responses and allow for three levels of analysis. First, because each box is an independent item, the results can therefore be analyzed independently of the others. On this level, for instance, Question 1 is in effect twelve independent pieces of information. The next possible level of analysis involves the column headings which divide Questions 1 and 2 into either two or three possible groups respectively. The third and broadest level of aggregation are the questions taken as whole. This level has little significance except for tabulating non-responses to the question.

Certain items on the questionnaire required the respondent to provide information or "fill in the blank". Questions 3 and 4 are of particular interest with respect to how "no responses" were interpreted. Since there was no way to distinguish the non-response of an item from the equally as likely possibility that the item was not applicable, all blanks were counted in the tabulation as a non-response. This procedure provided a conservative count as to the number of travel parties responding and did not bias the results by making any unwarranted assumptions.

Record Formats

Every item on the questionnaire was broken down to its most logically elementary level. These pieces of data were separately coded onto the magnetic tapes. All the data associated with a given questionnaire/enumeration form entry constitutes one logical record on the first file of every magnetic tape. For the recreation participation part of the questionnaire, each log book entry constitutes one logical record on the second file of every magnetic tape. Therefore, the number of records in the first file (trip information) of each of the tapes is equal to the number of travel parties for which information was recorded on a enumeration form. Likewise, the number of records in the second file (recreation participation informa-

tion) of each of the tapes is equal to the total number of log book entries for that state for that season.

As previously stated, every record consists of various data items in a given order. Since the contents of each data item will vary record by record, each data item is therefore a variable. Each of the records in the first file consists of 93 variables or pieces of data. The records of the second file consist of 9 variables or data inputs. (The concept of a "variable" is important within the context of a statistical program such as the Statistical Package for the Social Sciences.)

The order and description of the variables in the records in the first file are given in Table 3 .

Magnetic Tape Formats

The magnetic tapes, which contain the raw data, were written according to the following specifications.

- 9 track
- 1600 bpi
- E B C D I C
- Two files per tape
  1. File 1 - Enumeration/Survey
     - 1 record per block
     - 137 characters per record
  2. File 2 - Recreation Participation
     - 1 record per block
     - 19 characters per record

Each record tape is also labeled with the state name, season, unblocked, 166 bpi as well as the record size for files 1 and 2 in order to facilitate user convenience and safety.

SPSS Specifications

The statistical compilation of the survey data and report production was accomplished using the Statistical Package for the Social Sciences (SPSS) versions 7.0 and 8.0[1]. The operating system was located at the University of Colorado and was a Control Data Corporation 6400 computer using the KRONOS 2.1 operating language.

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[1] Statistical Package for the Social Sciences, Norman H. Nie, C. Hadlai Hull, Jean G. Jenkins, Karen Steinbrenner and Dale H. Brent; McGraw-Hill Book Company, 1970.

TABLE 3

ORDER, COLUMN AND DESCRIPTION OF VARIABLES
FOR RECORDS IN THE FIRST FILE

Enumeration Form Information Collected

Column	Variable		Description
1- 2	Var	1	Month of Survey Distribution
3- 4	Var	2	Day of Survey Distribution
5- 6	Var	3	Year of Survey Distribution
7	Var	4	State of Code[1]
8- 9	Var	5	Survey Location Code[1]
10	Var	6	Personal Interview/Non-Interview
11-15	Var	7	Enumeration Serial Number
16-17	Var	8	Vehicle Code[1]
18-19	Var	9	Home State Code[1]
20-21	Var	10	Number in Travel Party
22-23	Var	11	Age of Individual 1 in Travel Party
24-25	Var	12	Age of Individual 2 in Travel Party
26-27	Var	13	Age of Individual 3 in Travel Party
28-29	Var	14	Age of Individual 4 in Travel Party
30-31	Var	15	Age of Individual 5 in Travel Party
32-33	Var	16	Age of Individual 6 in Travel Party
34-35	Var	17	Age of Individual 7 in Travel Party
36-37	Var	18	Age of Individual 8 in Travel Party
38-39	Var	19	Age of Individual 9 in Travel Party
40-41	Var	20	Age of Individual 10 in Travel Party
42	Var	21	Mode Surveyed (auto, air, bus, rail)
43	Var	22	State Code[1]

Questionnaire Information Collected

44-48	Var	23	Survey Serial Number
			Question 1
49	Var	24	Present Price of Gas - No Influence
50	Var	25	- Shorter Trip
51	Var	26	- Longer Stay(s)
52	Var	27	- Fewer Side Trips
53	Var	28	- Cancel Other Trips
54	Var	29	- Changed Mode of Transportation
55	Var	30	Present Availability of Gas - No Influence
56	Var	31	- Shorter Trip
57	Var	32	- Longer Stay(s)
58	Var	33	- Fewer Side Trips
59	Var	34	- Cancel Other Trips
60	Var	35	- Change Mode of Transportation
			Question 2
61	Var	36	Gasoline $1.25 per Gallon[2] - No Influence
62	Var	37	- Shorter Trip
63	Var	38	- Longer Stays(s)
64	Var	39	- Fewer Side Trips
65	Var	40	- Cancel Other Trips
66	Var	41	- Changed Mode of Transportation

Column	Variable	Description	
68	Var 43	Gasoline $1.50 per Gallon[2]	- No Influence
69	Var 44		- Shorter Trip
70	Var 45		- Longer Stay(s)
71	Var 46		- Fewer Side Trips
72	Var 47		- Cancel Other Trips
73	Var 48		- Changed Mode of Transportation
74	Var 49		- Travel Closer to Home
75	Var 50	Gasoline Rationing	- No Influence
76	Var 51		- Shorter Trip
77	Var 52		- Longer Stay(s)
78	Var 53		- Fewer Side Trips
79	Var 54		- Cancel Other Trips
80	Var 55		- Change Mode of Transportation
81	Var 56		- Travel Closer to Home
		Question 3	
82-83	Var 57	Number of Days	
84-85	Var 58	Number of Nights	
		Question 4	
86	Var 59	Destination - State Planning Region	
87-88	Var 60	Destination - State or Province[1]	
		Question 5	
89	Var 61	States Visited This Trip	- Montana
90	Var 62		- Wyoming
91	Var 63		- North Dakota
92	Var 64		- South Dakota
93	Var 65		- Nebraska
		Question 6	
94	Var 66	Modes of Travel this Trip	- Automobile
95	Var 67		- Recreation Vehicle
96	Var 68		- Bus
97	Var 69		- Airplane
98	Var 70		- Train
99	Var 71		- Motor Bike
		Question 7	
		Purpose of Trip This State	
100	Var 72		- Vacation or Recreation
101	Var 73		- Visit Friends or Relatives
102	Var 74		- Business
103	Var 75		- Convention
104	Var 76		- Just Passing Through
		Question 8	
		What Factors Influence Your Choice	
105	Var 77		- State Published Literature
106	Var 78		- Advertising
107	Var 79		- Scenery
108	Var 80		- Recommended by Others
109	Var 81		- Previous Visit
110	Var 82		- Outdoor Recreation Opportunities
111	Var 83		- Other

Column	Variable	Description	
		Question 9	
112-114	Var 86	Expenditures Average Day	- Hotel/Motel
116-117	Var 85		- Campground
118-120	Var 86		- Eating and Drinking
121-123	Var 87		- Grocery
124-126	Var 88		- Sporting Goods
127-129	Var 89		- Gasoline/Auto Repair
130-132	Var 90		- Amusement/Recreation
133-135	Var 91		- Gifts, Film, and Other
		Question 10	
136	Var 92	Annual Income	- Family
137	Var 93		- Unrelated Individual

[1]The following codes will be found in Appendix A: State Codes, Survey Location Codes, Vehicle Codes, Home State, and Destination Codes.

[2]Due to continuous inflation during the course of the Study, Question 2 was changed to read Gas $1.50 per Gallon and Gas $1.75 per Gallon for the Spring 1980 surveying.

Source: Oblinger-McCaleb, Architects, Engineers, and Planners.

The order and description of the variable records in the second file pertaining to recreation participation information are given in Table 4 .

TABLE 4

ORDER, COLUMN AND DESCRIPTION OF VARIABLE RECORDS IN THE SECOND FILE PERTAINING TO RECREATION PARTICIPATION

Column	Variable	Description
1	Var 1	State Code[1]
2- 6	Var 2	Serial Number
7	Var 3	State Planning Region
8- 9		- Blank -
10-11	Var 4	Month
12-13	Var 5	Day
14-15	Var 6	Year
16-17	Var 7	Number of Persons[2]
18-19	Var 8	Activity Number[3]

[1]The description of State Codes can be found in Appendix A.

[2]Number of persons participating in that activity for that day.

[3]The description of the activity numbers as given on the questionnaire are illustrated in Appendix A.

Source: Oblinger-McCaleb, Architects, Engineers and Planners.

The SPSS control cards which generated the statistical reports are printed in the front of each of the bound reports. These SPSS control cards are compatible with all SPSS compilers regardless of the computer system to which the compiler is attached. The job cards which specify job name, account number, passwords, priority, equipment requirements, any necessary file manipulations, and job limits will be specific to the operating system, used in each state and at each local installation. Regardless of the system SPSS requires a minimum of 50,000 words octol of small core memory (CM) to load.

An important feature for data users are the Var Labels and Value Labels cards which are also reproduced in the front of each of the bound statistical reports. These cards give names and values to all the information contained on the data tapes whenever one of the SPSS procedures is initiated. This facilitates the reading of the output and allows for a simple visual check on the logic employed.

One other aspect of SPSS needs to be repeated for user convenience, the subfile card. The SPSS subfile card requires that the number of records for each subfile be given. The order of the subfiles in File 1 on every tape are as follows:

1. Auto
2. Air
3. Bus
4. Rail

The number of records in each subfile are given on the first page of the reproduced card decks for each season in the bound statistical summaries.

The tabulation of the activity days on File 2, which is included at the end of each statistical summary, was accomplished at the time the second file on each tape was created. This process was run at the installation at which the tape editing and writing was conducted in order to simplify the data processing and increase the turn-around time. The computer system used was an IBM 3700. While SPSS is fully capable of performing any analysis or data manipulation with the second file, the actual activity days tabulation was accomplished using a program written in COBOL. This program has been reproduced in Appendix B.

Because the data is in an unaggregated format, literally thousands of crosstabulations, frequencies and correlations can be performed. A few of the possible frequencies and crosstabulations have already been presented in the bound statistical reports for each of the seasons surveyed. In order to demonstrate the flexibility of the data, the remainder of this section will be devoted to several examples of further analysis using SPSS*.

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*An understanding of SPSS is desirable to fully appreciate the techniques to be described.

Examples of Further Analysis

One of the most usefull procedures in SPSS is the "select" function by which one can create sub-samples of the data using any combination of variables as criteria. For example, suppose that one was interested in knowing the income profiles for all individuals who arrived by automobile from neighboring states and had vacation or recreation as a primary purpose for their trip. The "select if" procedure would be accomplished by selecting automobiles (Var 21), for those origination states of interest (Var 60) and for those travel parties who checked Recreation or Vacation to Question 6 (Var 72). Following the select procedure, one would then initiate the frequencies procedure on Variables 92 and 93, which are family and individual incomes, respectively. A derivation on this procedure might be to run a crosstabs procedure on the neighboring states and both income variables. The actual card for this procedure would be: Select If (((Var 21 EQ 1) and Var 60 EQ to 1 OR 2 OR 3 OR 4) and Var 72 EQ 1.)/

An article that appeared in the Denver Post during June of 1980* explained some of the reactions of senior citizens, who had bought mobile homes, with plans of "seeing America" to the increasing gas prices. The owners of several trailer parks also voiced their concerns and noted some recent trends. If this was of interest, the survey data offers insights into the trends. Again, using the Select procedure one could construct a profile for those traveling in recreation vehicles and who are over fifty-five years of age by their responses to the Questions 1 and 2 which concern gasoline price and availability. The series of Select procedures would be similar in construction to the previous example. The responses to Questions 1 and 2 could be displayed using the Frequencies procedure similar to the format in the bound statistical summaries.

Another example of further analysis is the estimation of non-resident recreation activity days. Data from this survey was used to estimate non-resident recreation activity days for the 1980 Wyoming State Comprehensive Outdoor Recreation Plan (SCORP). Numerous computer programs were run which crosstabulated recreation or vacation trip purpose, travel party size, and actual recreation participation of this group of travellers. Recreation days of the survey sample population were expanded to the total number of non-resident travellers estimated in the State. Recreation days were attributed by planning region for each recreation category. A detailed discussion of the methodology used is contained in Appendix C of this report.

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* "Rolling Slower, New Mobile Culture Slowed by Gas Prices", Denver Post, June 25, 1980; American Press International.

SUMMARY OF FINDINGS
NEBRASKA

Introduction

The purpose of this Chapter is to present the major findings of the year-long non-resident survey. Selected results of the survey questions will be presented with comparisons made between seasons. Due to the amount of data generated, the major findings presented are for all modes of travel unless otherwise noted. All information presented, except where noted, pertains to travel parties.

Trip Origin

Trip origin data collected for the entire year reveals a significant pattern. In all four seasons, a majority of non-resident trips originated in the Great Lakes, Mountain West, and Frontier West states. Map 2 illustrates which states are included in these classifications. These areas accounted for approximately three-fourths of all non-resident trip origins through all four seasons.

States of trip origin for the four seasons are shown in Table 5 . The numbers adjacent to the states indicate the precentage of respondents who indicated that state as the origin of their trip during that season. The highest percentage of travellers originated in Iowa through the year. Colorado, South Dakota, and Minnesota were other principal origin states during each of the seasons. These states accounted for over one-third of trip origins through the year.

TABLE 5

PRINCIPAL ORIGIN STATES BY SEASON
ALL MODES

Rank	Season							
	Summer		Fall		Winter		Spring	
1	Iowa	(16.1%)	Iowa	(15.3%)	Iowa	(30.9%)	Iowa	(18.3%)
2	Colorado	(8.7%)	Colorado	(10.6%)	Minnesota	(7.7%)	Colorado	(11.5%)
3	California	(8.6%)	S. Dakota	(7.3%)	Colorado	(6.3%)	S. Dakota	(9.3%)
4	S. Dakota	(7.3%)	Illinois	(5.8%)	Illinois	(5.1%)	California	(7.3%)
5	Kansas	(6.6%)	Minnesota	(5.7%)	Kansas	(4.4%)	Minnesota	(7.0%)

Source: Oblinger-McCaleb, Architects, Engineers, and Planners.

1977 National Travel Survey Travel Regions

1. New England
2. Eastern Gateway
3. George Washington Country
4. South
5. Great Lakes Country
6. Mountain West
7. Frontier West
8. Far West and Hawaii

Map 2

Trip Destination

Destinations of travellers also exhibited a significant pattern throughout the year. During the year, over one-fourth of the non-resident travellers surveyed indicated Nebraska as their destination. Over one-third of the travellers surveyed in the fall and spring seasons and over half in the winter season indicated Nebraska as their destination. Colorado and Iowa were principal destination states for all seasons. Destination states and the percent of responses by season are shown in Table 6.

TABLE 6

PRINCIPAL DESTINATION STATES
ALL MODES

	Season							
Rank	Summer		Fall		Winter		Spring	
1	Nebraska	(26.6%)	Nebraska	(35.2%)	Nebraska	(50.4%)	Nebraska	(34.5%)
2	Colorado	(17.3%)	Colorado	(11.9%)	Colorado	(11.0%)	Colorado	(8.7%)
3	California	(6.8%)	Iowa	(7.1%)	California	(8.0%)	Iowa	(7.3%)
4	Iowa	(6.0%)	S.Dakota	(6.5%)	Iowa	(3.8%)	California	(6.9%)
5	S. Dakota	(6.0%)	Kansas	(3.8%)	Illinois	(3.5%)	Illinois	(4.5%)

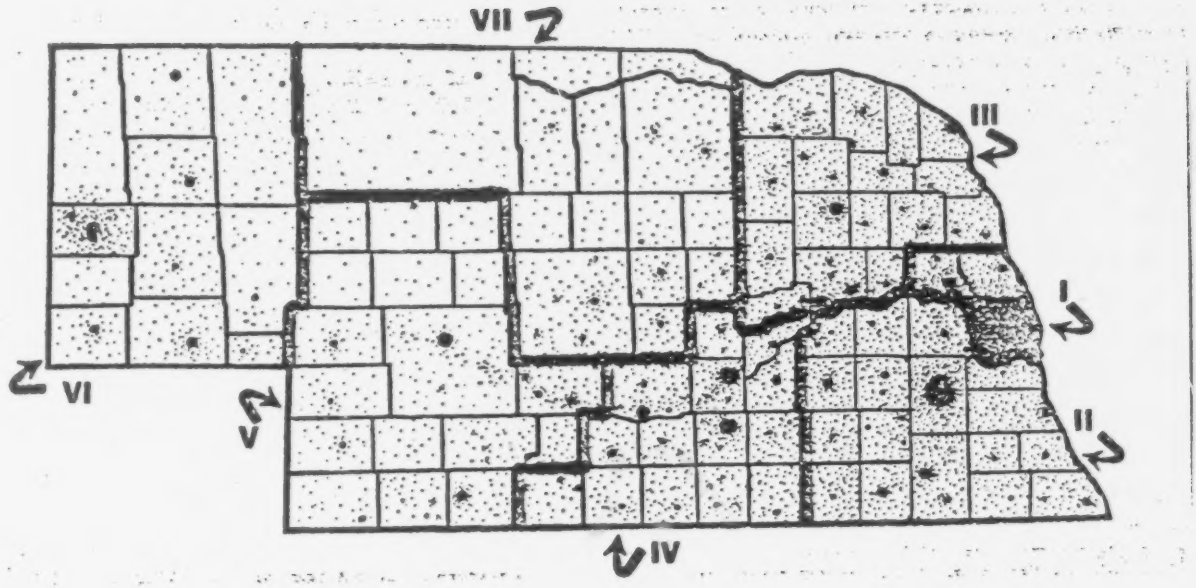
Source: Oblinger-McCaleb, Architects, Engineers, and Planners.

The destinations of travellers within Nebraska were principally the eastern portions of the State. During the summer and fall seasons a majority of respondents indicated planning regions 1, 2, and 3 as their destinations. Approximately three-fourths of the respondents during these seasons indicated these regions as their destinations within Nebraska. These regions are illustrated on Map 3. In the winter and spring seasons, regions 1, 2, and 4 were the principal destination areas. These two regions accounted for approximately three-fourths of the destinations within the State for these seasons.

Trip Purpose

Purposes of non-resident trips to the State fluctuated throughout the year. Table 7 summarizes trip purpose for all modes by season.

STATE RECREATION PLANNING REGIONS



Map 3

TABLE 7

TRIP PURPOSE

Percent of Total Response

Trip Purpose	Summer	Fall	Winter	Spring
Vacation or Recreation	11.9	8.0	7.6	4.6
Visiting Friends or Relatives	25.5	25.6	23.8	27.4
Business	13.3	1.8	32.7	17.6
Convention	1.1	2.7	1.5	1.3
Just Passing Through	48.2	44.7	34.9	49.1

Source: Oblinger-McCaleb, Architects, Engineers, and Planners.

As shown in Table 7, over one-third (nearly half during the summer and spring seasons) of non-resident travellers were just passing through during the year. Nearly one-fourth of the respondents were visiting in the State in all seasons. During the winter season approximately one-third of the respondents indicated they were in the State for business purposes.

Travel Party Size

Travel party size is reflective of a traveller's trip purpose. Table 8 indicates average travel party size by mode and by season.

TABLE 8

AVERAGE NUMBER IN TRAVEL PARTY
ALL MODES BY SEASON

Season

Mode	Summer	Fall	Winter	Spring
Automobile	2.51	2.24	2.30	2.28
Air	1.50	1.12	1.33	1.47
Bus	1.32	1.56	1.45	1.47

Source: Oblinger-McCaleb, Architects, Engineers, and Planners.

As might be expected, the largest average travel party sizes occurred during the summer months for all modes except bus. Travel parties were largest for automobile travellers throughout the year, averaging over 2.5 persons per party during the summer and just over two persons the remainder of the year. Air and bus travel parties were approximately equal in size throughout the year with the exception of the fall season.

Length of Stay

Length of stay is also related to trip purpose. The average number of days and nights spent in the State is illustrated in Table 9 for each mode and each season. Comparing all modes on a seasonal basis, the average length of stay was highest for air passengers during the year except during the spring. Length of stay for automobile passengers was the lowest of all modes throughout the year. Length of stay was longest for air and bus passengers during the summer, but the longest stay for bus passengers was recorded during the spring.

TABLE 9

AVERAGE LENGTH OF STAY - ALL SURVEYS RETURNED
ALL MODES BY SEASON

Mode	Season			
	Summer	Fall	Winter	Spring
Automobile				
Days	2.17	1.67	3.20	2.47
Nights	1.65	1.26	2.56	1.70
Air				
Days	5.05	4.82	3.43	3.88
Nights	4.59	4.50	2.71	3.41
Bus				
Days	3.13	3.66	3.25	4.34
Nights	2.73	2.28	2.33	3.41

Source: Oblinger-McCaleb, Architects, Engineers, and Planners.

It should be noted that the averages in Table 9 are based on the total number of surveys returned. Several questionnaires were returned which had no response to this question. Some travellers likely spent less than one day in the State and correctly entered a zero or left the response space blank; other travellers ignored the question. It was difficult to determine legitimate answers since there was no means to check the responses with responses to other questions. It appeared that the averages were low, especially during the summer, and an additional computer program was initiated to deter-

mine the average length of stay based on the number of persons who actually responded to the question. These averages are presented in Table 10.

TABLE 10

AVERAGE LENGTH OF STAY - RESPONDENTS ONLY
ALL MODES BY SEASON

Mode	Season			
	Summer	Fall	Winter	Spring
Automobile				
Days	2.75	2.13	3.46	2.78
Nights	2.85	2.12	3.96	2.71
Air				
Days	6.06	5.56	4.08	4.71
Nights	6.89	5.40	3.46	4.75
Bus				
Days	4.21	4.84	3.25	4.60
Nights	6.09	4.45	5.04	7.25

Source: Oblinger-McCaleb, Architects, Engineers, and Planners.

A comparison of the averages in the two tables reveals slightly higher lengths of stay for all travellers. The average number of nights increased more than the average number of days for all modes and significantly increased for bus passengers in the winter and spring seasons. Highest averages were recorded for air travellers during the year except spring (number of nights); and the lowest averages recorded for automobile travellers throughout the year except winter (number of days).

Age of Travellers

The age of travellers to the State is also reflective of trip purpose and season of the year. Table 11 summarizes age of travellers by season for all modes. The numbers in the table refer to the percentage of respondents in that age group for that particular season. The statistics include individuals in travel parties surveyed.

The statistics show that the highest percentage of travellers during the summer were under 18 years of age. This was most likely due to families with children visiting in the State and taking vacations in the State and elsewhere (refer to Table 7, Trip Purpose). The fall season exhibited a fairly even age distribution of travellers entering the State with the 25 to 34 age group recording the highest percentage. During the winter and spring seasons, the highest percentages were also recorded for the 25 to 34

age groups. The lowest percentage was recorded throughout the year for the 65 and older age group.

TABLE 11

PERCENT TRAVELLERS IN AGE GROUP
ALL MODES

Age Group	Season			
	Summer	Fall	Winter	Spring
Under 18	25.3	13.8	14.0	15.0
18-24	12.9	13.0	13.0	15.4
25-34	17.2	20.2	25.2	19.8
35-44	14.4	16.2	16.0	12.3
45-54	12.7	12.9	16.7	16.1
55-64	10.8	14.4	9.9	13.4
65 and Older	6.5	9.5	5.0	8.0

Source: Oblinger-McCaleb, Architects, Engineers, and Planners.

Income of Travellers

The income of travellers to Nebraska is related to several factors, including travel mode, length of stay, and trip purpose. Income levels also have a significant influence on a traveller's expenditures while in the State. The percent of travel parties and individuals in each income bracket for each season is shown in Table 12.

TABLE 12

PERCENT TRAVELLERS IN INCOME BRACKET
ALL MODES

Income Bracket	Summer	Fall	Winter	Spring
	Family Income			
Under $ 6,000	4.2	6.8	14.0	9.7
6,000 - 9,999	9.2	11.4	7.0	9.9
10,000 -14,999	22.5	15.2	11.3	13.3
15,000 -24,999	36.8	33.6	28.2	30.0
25,000 -49,999	23.3	25.4	30.2	29.8
50,000 and Over	4.0	7.6	9.3	7.3

(Table continued on next page)

Income Bracket	Summer	Fall	Winter	Spring
		Indiviudal Income		
Under $ 6,000	20.0	26.5	17.9	25.7
6,000 - 9,999	14.9	23.5	5.4	19.5
10,000 -14,999	30.6	13.3	17.9	22.1
15,000 -24,999	20.8	20.4	23.2	15.9
25,000 -49,999	11.0	15.3	28.6	14.2
50,000 and Over	2.7	1.0	7.1	2.7

Source: Oblinger-McCaleb, Architects, Engineers, and Planners.

The percentages in the table for family income reveal a significant pattern throughout the year. Over half of the respondents indicated their income was in the $15,000 to $24,999 and $25,000 to $49,999 income brackets. Approximately two-thirds of the respondents indicated their income was $15,000 and over for all seasons.

The percentages for individual income show a somewhat different distribution. The highest percentage in the summer season was recorded for the $10,000 to $14,999 income bracket. The under $6,000 income bracket recorded the highest response rate in the fall and spring seasons. The highest percentage recorded during the winter seasons was in the $25,000 to $49,999 income bracket. In general, higher percentages in the lower income brackets were recorded for individuals compared to families in all seasons. Except for the winter season, approximately over 60 percent of the respondents indicated their individual income was under $15,000.

Expenditures

Amount of expenditures of non-resident travellers to Nebraska is related to income levels of travellers. Types of expenditures are also reflective of trip purpose and mode of travel. Average daily expenditures per travel party by mode for all seasons are summarized in Table 13.

Expenditures by air travellers recorded the highest averages of all modes for all seasons. Expenditures for eating and drinking and hotel accommodations were the two highest expenditure items during all seasons. Combined, these expenditure items accounted for over two-thirds of the average total amount expended daily by air travellers in each of the seasons.

Average expenditures for automobile travellers were highest during the winter and lowest in the summer. Gasoline, eating and drinking expenditures, and hotel accommodations were the three items for automobile travellers recording the highest averages in all seasons. For bus travellers, eating and drinking expenditures recorded the highest averages for all seasons; the second highest average expenditure item was hotel accommodations for all

TABLE 13

AVERAGE DAILY EXPENDITURES

Mode 1 Expenditure Item	Season Summer	Fall	Winter	Spring
Automobile				
Hotel	$ 9.16	$ 9.53	$16.53	$11.44
Campground	.83	.51	.08	.23
Eating and Drinking	11.33	9.07	17.03	13.76
Grocery	2.44	1.88	.68	1.19
Sporting Goods	.22	.24	.20	.04
Gas and Auto Repair	19.01	21.05	19.79	21.82
Amusement and Recreation	1.24	1.16	3.80	.73
Other	2.03	2.21	2.69	2.43
Total	$46.26	$45.65	$60.80	$51.64
Air				
Hotel	$14.61	$34.31	$28.45	$20.94
Campground	.15	.00	.00	.00
Eating and Drinking	16.35	32.00	24.75	20.49
Grocery	1.19	.32	.86	1.67
Sporting Goods	.44	1.18	.00	.00
Gas and Auto Repair	9.69	4.56	4.49	3.97
Amusement and Recreation	1.90	2.04	2.57	1.72
Other	2.83	3.09	2.47	5.71
Total	$47.16	$77.50	$63.59	$54.50
Bus				
Hotel	$ 6.21	$ 1.01	$ .70	$ 1.41
Campground	.35	.04	.00	.00
Eating and Drinking	8.81	3.03	4.86	5.48
Grocery	.68	.14	.09	.11
Sporting Goods	.71	.07	.00	.00
Gas and Auto Repair	2.54	.46	.54	.65
Amusement and Recreation	.72	1.10	1.05	1.26
Other	.40	.38	3.04	3.04
Total	$20.42	$ 6.23	$10.28	$11.95

Source: Oblinger-McCaleb, Architects, Engineers, and Planners.

seasons. Average daily expenditures by bus travellers were lowest for all modes throughout the year.

Price and Availability of Gasoline

The survey questionnaire included questions which asked travellers how the current price and availability of gasoline affected their trip and how the future price and availability might affect future trips. Table 14 shows the percent of responses to the questions dealing with existing conditions.

Over 65 percent of the respondents indicated the price and availability of gasoline during the survey period had no influence on their trip. The percent of respondents who indicated no influence increased to over 80 percent for the winter season. Travellers' incomes likely were factors which determined whether the price of gasoline affected a trip. During the winter season, the highest response rates were recorded in the $25,000 to $49,999 income brackets (refer to Table 12 , Traveller Income). For those persons who indicated the price of gasoline had an influence on their trip, more people indicated they made fewer side trips during the summer, fall, and spring seasons and changed thier mode of travel in the winter season. The availability of gasoline also apparently had little influence on travel during the survey period. Approximately two-thirds of the respondents reported gasoline availability had no influence on their trip. This response rate declined to 60 percent in the spring season. For those who indicated an influence, more respondents made fewer side trips during the summer, took shorter trips during the fall and winter seasons, and changed their mode of travel in the winter and spring seasons.

Table 15 shows the responses to future gasoline conditions. The responses to these questions differ significantly from the responses to the existing conditions questions. During the summer season, two-thirds to half of the respondents indicated higher gasoline prices would influence future trips. Approximately 14 to 25 percent of the respondents in the summer, winter and spring seasons indicated they would travel closer to home. Approximately 10 percent of the winter respondents indicated they would change their mode of travel.

Uncertainties surrounding future availability of gasoline if rationing were implemented might have a more significant impact on travel. Approximately three-fourths of the respondents during the winter and spring and over two-thirds in the summer indicated gasoline rationing would affect future trips. Seventeen to 30 percent of the summer, winter, and spring respondents who indicated an influence noted they would travel closer to home.

TABLE 14

PERCENT[1] RESPONSE TO GASOLINE QUESTIONS
EXISTING CONDITIONS

	Season			
	Summer	Fall	Winter	Spring
Present Price[2]				
No Influence	71.9	80.5	66.3	63.6
Shorter Trip	8.3	5.5	2.3	6.0
Longer Stays	3.6	3.7	1.8	4.0
Fewer Side Trips	10.5	4.9	2.8	8.6
Cancelled Trips	6.6	3.0	1.6	3.1
Mode Change	4.3	3.3	4.1	6.9
Present Availability				
No Influence	69.7	77.5	64.5	60.6
Shorter Trip	6.0	3.2	1.6	3.8
Longer Stays	3.7	1.6	.5	2.4
Fewer Side Trips	7.5	3.0	.8	3.5
Cancelled Trips	4.4	2.1	.3	.9
Mode Change	3.7	1.4	1.6	5.0

[1]Percentages for each season will not total 100 percent since respondents could check more than one answer.

[2]The "present price of gasoline" steadily increased during the surveying period.

Source: Oblinger-McCaleb, Architects, Engineers, and Planners.

TABLE 15

PERCENT[1] RESPONSE TO GASOLINE QUESTIONS
FUTURE CONDITIONS

	Season			
	Summer	Fall	Winter	Spring
Gas at $1.25/gallon[2]				
No Influence	37.7	59.0	51.6	41.5
Shorter Trip	15.9	8.5	3.1	9.7
Longer Stays	5.5	4.4	1.3	5.2
Fewer Side Trips	12.1	7.2	1.8	9.0
Cancelled Trips	16.5	6.3	1.6	7.3
Mode Change	10.2	6.5	5.2	7.8
Travel Closer to Home	24.5	12.7	2.6	12.8
Gas at $1.50/gallon[2]				
No Influence	46.8	55.2	39.2	32.6
Shorter Trip	8.5	5.7	11.2	15.0
Longer Stays	6.7	4.1	5.9	5.6
Fewer Side Trips	6.9	4.4	10.4	11.9
Cancelled Trips	9.5	6.5	10.5	17.8
Mode Change	12.0	10.1	13.1	12.0
Travel Closer to Home	14.4	5.7	14.2	25.2
Gas Rationing				
No Influence	37.0	47.2	29.2	25.3
Shorter Trip	7.0	4.9	7.4	15.9
Longer Stays	5.5	3.4	5.9	8.4
Fewer Side Trips	7.6	3.9	7.3	16.6
Cancelled Trips	12.3	8.0	11.2	22.9
Mode Change	17.3	13.7	15.4	16.7
Travel Closer to Home	18.7	9.3	17.1	30.1

[1]Percentages for each season will not total 100 percent since respondents could check more than one answer.

[2]Due to continuous increases during the surveying period, these figures were changed to $1.50 and $1.75, respectively, for the spring season.

Source: Oblinger-McCaleb, Architects, Engineers, and Planners.

Estimated Non-Resident Travellers

The total number of non-resident travellers to the State was estimated utilizing data collected during the survey and other data sources. The estimate of total non-resident travellers involves two steps.

The first step estimated the total number of automobile travellers entering the State utilizing traffic count data for the survey period supplied by the State Department of Roads. Traffic count data represented the most complete and detailed information available on non-resident travel compared to other modes of travel. Average daily traffic count data was obtained by season for each survey location as shown in Table 16. Foreign (non-resident) inbound counts were calculated for each survey location. At some survey locations, accurate foreign counts were not available. Estimates for these locations were made from discussions with road department officials concerning trends in traffic since last counts were made and foreign traffic percentages. In some instances counts from adjacent states were used when available and estimated foreign percentages applied. The foreign inbound counts were then summed by season. These figures are shown in Table 16.

Since the survey locations did not cover each highway entering the State, they represented a certain percentage of total foreign inbound traffic entering the State. These percentages were calculated during the survey design and are shown on line 2 of Table 17. Knowing this percentage, the total number of non-resident travellers entering the State during each season was obtained by using the following formula:

$$\frac{\text{Total Foreign ADT at Survey Locations}}{\text{Percent Survey Location Total was to Total ADT entering State}} \times \text{Number of Days in Season} \times \text{Average number of Persons per Vehicle}$$

This calculation arrived at the estimated total number of non-resident automobile travellers entering the State during each season as shown in Table 17.

This estimated number of automobile travellers was used as a basis for the second step in determining all travellers by mode. From the Travel During 1977, National Travel Survey the percentages that each mode constituted of the total sample during that survey were calculated. Given the number of automobile travellers arrived at in step one and the percent they constituted of the total number of travellers, the number of automobile travellers was divided by this percentage to arrive at the total number of travellers. Knowing the total number of travellers, the appropriate percentages shown in Table 18 were applied to the total to determine the number of non-resident travellers by mode. The "Other" category includes individuals who travelled by train, motorcycle, other modes, or different modes entering and leaving the State.

As would be expected, the number of non-resident travellers during the summer was highest of all four seasons. Of the 10,795,915 non-resident travellers entering Nebraska during the survey period, approximately 40 percent came during the summer months.

TABLE 16

ESTIMATED NON-RESIDENT INBOUND ADT BY SEASON
AT RANDOMLY SELECTED STATE BORDER CROSSINGS
NEBRASKA

Survey Location	1979-80 AADT	Annual Percent Foreign	Foreign ADT	1979 Summer ADT	Summer Foreign ADT	1979 Fall ADT	Fall Foreign ADT	1979-80 Winter ADT	Winter Foreign ADT	1980 Spring ADT	Spring Foreign ADT
I-80 East of Lincoln	8,196	50	4,098	11,638	5,819	7,868	3,934	5,901	2,360	7,376	2,951
U.S. 83 North of Valentine	250	17	42	293	59	260	39	210	32	238	36
U.S. 385 North of Chadron	517	16	85	605	121	538	81	434	65	491	74
I-80 West of Kimball	1,787	56	1,000	2,538	1,523	1,716	1,030	1,287	644	1,608	804
N. 2 East of Syracuse	1,975	16	325	2,311	462	2,054	308	1,659	249	1,876	281
U.S. 136 East of Auburn	945	17	156	1,106	221	983	147	794	119	898	135
U.S. 81 North of N. 12	1,450	16	239	1,697	339	1,508	226	1,218	183	1,378	207
U.S. 77 North of S. Sioux City	2,350	16	387	2,750	550	2,444	367	1,974	296	2,233	335
U.S. 81 South of Hebron	925	18	163	1,082	238	962	164	777	117	879	132
	18,395		6,495	24,020	9,332	18,333	6,296	14,254	4,065	16,977	4,955

Source: State of Nebraska, State Department of Roads - 1980.

TABLE 17

ESTIMATED NON-RESIDENT INBOUND VEHICLES
AND PASSENGERS
NEBRASKA

	Summer	Fall	Winter	Spring
Total Non-Resident ADT of roads selected to be surveyed:	9,332	6,296	4,065	4,955
Percent of State Total of roads surveyed:	54%	54%	54%	54%
Total Non-Resident ADT of State highways:	17,281	11,659	7,528	9,176
Number of Days in Season:	92	91	91	92
Estimated number of Non-Resident Passenger Vehicles that entered the State:	1,589,852	1,060,969	685,048	844,192
Average Number of Persons per Vehicle:	2.51	2.24	2.30	2.28
Estimated Number of Out-of-State Travelers:	3,990,529	2,376,571	1,575,610	1,924,758

TOTAL NON-RESIDENT INBOUND AUTOMOBILE TRAVELERS FOR YEAR: 9,867,468

Source: Oblinger-McCaleb, Architects, Engineers, and Planners - 1980.

TABLE 18

ESTIMATED NON-RESIDENT TRAVELERS BY MODE
NEBRASKA

Mode of Travel		Summer	Fall	Winter	Spring	Annual
Auto	(91.4%)	3,990,529	2,376,571	1,575,610	1,924,758	9,867,468
Air	(3.9%)	170,274	101,407	67,231	82,129	421,041
Bus	(1.3%)	56,758	33,802	22,410	27,376	140,346
Other	(3.4%)	148,444	88,406	58,611	71,599	367,060
	Total	4,366,005	2,600,186	1,723,862	2,105,862	10,795,915

Source: Travel During 1977, National Travel Survey, U.S. Department of Commerce - 1977, and Oblinger, McCaleb, Architects, Engineers, and Planners - 1980.

Estimated Non-Resident Expenditures

Utilizing average daily travel party expenditure information from Table 13 and the estimated number of travellers by mode by season, total non-resident traveller expenditures in the State were estimated. These extimates were made by mode by season using the following formula:

$$\frac{\text{Total Estimated Travellers}}{\text{Average Travel Party Size}} \times \text{Average Length of Stay} \times \text{Average Daily Expenditure}$$

The formula was applied to each mode of travel using the figures in Table 18 (Estimated Non-Resident Travellers by Mode), Table 8 (Average Number in Travel Party), Table 9 (Average Length of Stay), and Table 13 (Average Daily Expenditures). Total non-resident traveller expenditures by expenditure category is summarized in Table 19. The figures in the table are the sum of expenditures by automobile, air, bus, and other travellers. Since no statistics were compiled for other travellers, the averages for all modes combined were used in estimating expenditures for this group of travellers. This assumes that expenditures for this group were between bus and automobile travellers in most cases.

Expenditures by non-resident travellers in the State were estimated to total approximately $584,191,485 during the survey period. Slightly under one-third of this total was expended by summer travellers and an additional one-fourth was expended by winter travellers. Major expenditure items throughout the year included gasoline and auto repair, eating and drinking, and hotel accommodations. For each season, these were the three highest expenditure items in that order.

Estimated Non-Resident Recreation Participation

Recreational activity days for the survey period are summarized in Table 20 . Thirty-four categories of recreational activity in which non-residents involved themselves are listed by season and annual totals are given. The survey period was June 1, 1979 through May 31, 1980.

During the course of the study, seasonal summaries of the sampled non-residents recreational use was reported by each activity for each of the Old West States' planning regions. By utilizing the total non-resident travel estimates previously discussed in this report, the seasonal sample cases were expanded to represent the total non-resident seasonal usage. This was done by the following equation[1]:

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[1] This expansion method is one of two methods developed by the Consultant. A slightly different approach, and one which requires much more exhaustive calculations, can be found in Appendix C of this report. This report's methodology attributes all activity days to those who classified the main purpose of their trip as being to vacation and/or participate in recreational activities. Since the average party size for these groups was larger than the average party size for all non-resident groups, and since this number appears in the denominator of the above equation, the result was to obtain a slightly smaller (6%) number then under the methodology used here.

TABLE 19

ESTIMATED NON-RESIDENT TRAVELER EXPENDITURES BY SEASON
NEBRASKA

Expenditure Category	Summer	Fall	Winter	Spring	Annual
Hotel/Motel	$ 40,232,357	$ 33,214,372	$ 43,633,468	$ 29,731,028	$146,811,225
Campground	2,925,008	945,757	174,242	488,558	4,533,565
Eating and Drinking	48,929,391	31,501,141	44,314,951	35,043,418	159,788,901
Gorcery	9,007,936	3,623,109	1,734,239	2,975,506	17,340,790
Sporting Goods	1,085,354	978,613	449,410	82,193	2,595,570
Gasoline/Auto Repair	69,967,150	40,983,729	46,298,523	48,153,459	205,402,861
Amusement/Recreation	5,364,217	3,161,394	9,303,340	2,104,735	19,933,686
Gifts, Film, and Other	8,525,097	5,514,107	6,862,655	6,883,028	27,784,887
Total	$186,036,510	$119,922,222	$152,770,828	$125,461,925	$584,191,485

TOTAL NON-RESIDENT TRAVELER EXPENDITURES FOR YEAR: $584,191,485

Source: Oblinger-McCaleb, Architects, Engineers, and Planners - 1980.

$$\frac{\text{Sampled Activity Days}^2}{\text{Number parties}^3 \times \text{Number of people/party}^4} \times \text{Number of People in Universe}^5 = \text{Total Non-Resident Activity Days by Season}$$

Summing the seasonal estimates, of course, provides the annual estimates.

For Nebraska the annual non-resident recreational usage is 5,299,976 activity days. Of this amount nearly 41 percent is attributed to visiting special attractions, visiting historical sites and attending events.

Peak loading, as expected, occurs during the summer season. Nearly 58 percent of the total annual non-resident recreation use occurred from June 1 to August 31, 1979. During this period attending events accounted for nearly 15 percent of the total; visiting special attractions accounted for 13 percent; and public campground camping was third most popular with nearly 10 percent of the summer's non-resident activity.

By far the most popular winter time activity was attending events with nearly 62 percent of the winter's totals.

In the fall, hunting at 14 percent followed only attending events (24 percent) and visiting historical sites (14 percent) in popularity.

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[2] For all sampled non-residents during any given season.

[3] The number of sampled non-residents for each season in Nebraska were as follows: summer - 1,314, fall - 568, winter - 386, and spring - 579.

[4] From Table 8.

[5] From Table 18.

TABLE 20

NON-RESIDENT ACTIVITY DAYS
NEBRASKA

Recreation Activity		Season				
		Summer	Fall	Winter	Spring	Total
01	Primitive Campground	131,316	13,618	26,998	1,742	173,674
02	Public Campground	297,118	54,470	0	19,161	370,749
03	Private Campground	181,719	38,583	11,250	3,484	235,036
04	Special Camp	19,896	0	0	0	19,896
05	Picnicking: Highway Reststops	317,014	111,210	8,999	29,612	466,835
06	Picnicking: Area with Tables	180,393	104,402	13,499	66,192	364,486
07	Picnicking: Area without Tables	11,938	9,078	0	0	21,016
08	Day Hiking	62,342	4,539	26,998	13,935	107,814
09	Backpacking	17,243	0	0	0	17,243
10	Jogging	39,792	31,774	0	1,742	73,308
11	Horseback Riding	76,932	0	26,998	5,225	109,155
12	Fishing: Stream/River	2,653	0	0	3,484	6,137
13	Fishing: Lakeshore	32,140	18,157	0	15,677	65,974
14	Fishing: Lake, from boat	23,876	13,618	0	3,484	40,978
15	Ice Fishing	0	0	0	0	0
16	Hunting	14,591	163,412	0	0	178,003
17	Off Highway Vehicle Use: Motorcycle	30,508	0	26,998	0	57,506
18	Off Highway Vehicle Use: Other	10,611	0	0	3,484	14,095
19	Snowmobiling	0	0	0	0	0